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CLAIMS

Please cancel claim 30 without prejudice or disclaimer as the subject matter thereof.

1.   (currently amended) A communication system for at least one of monitoring the performance of an implantable medical device (IMD) implanted within a body of a patient, monitoring the health of the patient and remotely delivering a therapy to the patient through the IMD, the IMD being capable of bi-directional communication with a communication module located external to the patient's body, the system comprising:

(a)   ~~the~~ an IMD;

(b)   ~~the~~ a communication module adapted to establish data-based communication with the IMD;

(c)   a mobile telephone operably connected to the communication module and capable of receiving information therefrom or relaying information thereto;

(d)   a remote computer system;

(e)   a communication system adapted for establishing ~~capable of~~ bi-directional communication ~~with~~ between: the mobile telephone and the remote computer system, a pair of mobile telephones, the mobile telephone and the IMD; and

(f)   means for generating an invoice when communication is one of initiated between the IMD and the remote computer system, the IMD and the communication module, the communication module and the remote computer system, and the communication module and the communication system,

wherein the communication module further comprises means for at least one of: mining patient history, performing a performance parameter integrity check, and performing a software status check.

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2. (Original) The system of claim 1, wherein the means for generating an invoice is incorporated into the communication system.

3. (Original) The system of claim 1, wherein the means for generating an invoice is incorporated into a telephone system included in the communication system.

4. (Original) The system of claim 1, further comprising means for electronically transmitting generated invoices to at least one predetermined location for further processing and billing.

5. (Original) The system of claim 1, further comprising means for calculating the amount of each invoice in accordance with the number, type or frequency of services provided to the patient by the system.

6. (Previously presented) The system of claim 1, further comprising means for calculating the amount of each invoice in accordance with the type or identification indicia stored in communication module or IMD.

7. (Original) The system of claim 1, wherein the remote computer system further comprises means for making a remote diagnostic assessment of the patient's condition on the basis of the information relayed thereto by at least one of the IMD and the communication module.

8. (Original) The system of claim 7, wherein the means for generating an invoice further comprises means for generating an invoice in response to the remote diagnostic assessment being made.

9.   (Original) The system of claim 7, wherein the remote computer system further comprises means for remotely executing a remedial response or therapy on the basis of the information relayed thereto by at least one of the IMD and the communication module.

10.   (Original) The system of claim 9, wherein the means for generating an invoice further comprises means for generating an invoice in response to the remote diagnostic assessment being made.

11.   (Original) The system of claim 1, wherein the communication module is incorporated into the mobile telephone.

12.   (Original) The system of claim 1, wherein the mobile telephone further comprises a Personal Data Assistant (PDA).

13.   (Original) The system of claim 1, wherein the IMD and the communication module communicate with one another using radio-frequency telemetry.

14.   (Original) The system of claim 1, wherein the means for generating an invoice is incorporated into at least one of a mobile telephone network, the Internet, a Local Area Network (LANs), a Wide Area Network (WAN), an Integrated Services Digital Network (ISDN), a Public Switched Telephone Network (PSTNs), a wireless network, an asynchronous transfer mode (ATM) network, and a satellite.

15.   (Original) The system of claim 1, wherein the means for generating invoices further comprises means for generating automatic invoices in response to a patient-initiated, IMD-initiated, remote computer system-initiated, communication module-initiated, mobile phone-initiated and a PDA-initiated

transmission or reception of information that one of originates in or relates to the IMD.

16.   (Previously presented) A communication system for at least one of monitoring the performance of an implantable medical device (IMD) implanted within a body of a patient, monitoring the health of the patient and remotely delivering a therapy to the patient through the IMD, the IMD adapted to perform being capable of bi-directional communication between with at least one of a mobile telephone and a Personal Data Assistant (PDA) located external to the patient's body, the system comprising:

(a)   the an IMD;

(b)   the at least one of the a mobile telephone and the a PDA, the at least one of the mobile telephone and the PDA adapted for simultaneously transmitting and being capable of receiving information from or relaying information to with the IMD;

(c)   a remote computer system;

(d)   a communication system adapted to perform simultaneous capable of bi-directional communication with the at least one of the mobile telephone and the PDA;

(e)   means for generating an invoice when communication is one of initiated between the IMD and the remote computer system, the IMD and the at least one of the mobile telephone and the PDA, the at least one of the mobile telephone and the PDA and the remote computer system, and the at least one of the mobile telephone and the PDA and the communication system,

wherein the communication system further comprises means for at least one of: mining patient history, performing a performance parameter integrity check, and performing a software status routine.

17.   (Original) The system of claim 16, wherein the means for generating an invoice is incorporated into the communication system.

18.   (Original) The system of claim 16, wherein the means for generating an invoice is incorporated into a telephone system included in the communication system.

19.   (Original) The system of claim 16, further comprising means for electronically transmitting generated invoices to at least one predetermined location for further processing and billing.

20.   (Original) The system of claim 16, further comprising means for calculating the amount of each invoice in accordance with the number, type or frequency of services provided to the patient by the system.

21.   (Previously presented) The system of claim 16, further comprising means for calculating the amount of each invoice in accordance with the type or identification indicia stored in the communication module or the IMD.

22.   (Original) The system of claim 16, wherein the remote computer system further comprises means for making a remote diagnostic assessment of the patient's condition on the basis of the information relayed thereto by at least one of the IMD and the at least one of the mobile telephone and the PDA.

23.   (Original) The system of claim 22, wherein the means for generating an invoice further comprises means for generating an invoice in response to the remote diagnostic assessment being made.

24.   (Original) The system of claim 22, wherein the remote computer system further comprises means for remotely executing a remedial response or therapy

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on the basis of the information relayed thereto by at least one of the IMD and the communication module.

25.   (Original) The system of claim 24, wherein the means for generating an invoice further comprises means for generating an invoice in response to the remote diagnostic assessment being made.

26.   (Original) The system of claim 16, wherein the mobile telephone and the Personal Data Assistant (PDA) for a single unit.

27.   (Original) The system of claim 16, wherein the IMD and the at least one of the mobile telephone and the PDA communicate with one another using radio-frequency telemetry.

28.   (Original) The system of claim 16, wherein the means for generating an invoice is incorporated into at least one of a mobile telephone network, the Internet, a Local Area Network (LANs), a Wide Area Network (WAN), an Integrated Services Digital Network (ISDN), a Public Switched Telephone Network (PSTNs), a wireless network, an asynchronous transfer mode (ATM) network, and a satellite.

29.   (Original) The system of claim 16, wherein the means for generating invoices further comprises means for generating automatic invoices in response to a patient-initiated, IMD-initiated, remote computer system-initiated, communication module-initiated, mobile phone-initiated and a PDA-initiated transmission or reception of information that one of originates in or relates to the IMD.

30.   (canceled)

31.   (currently amended) At least one of a mobile telephone and a Personal Data Assistant (PDA) for use in a system for at least one of monitoring the performance of an implantable medical device (IMD) implanted within a body of a patient, monitoring the health of the patient and remotely delivering a therapy to the patient through the IMD, the IMD being capable of bi-directional communication with the at least one of the mobile telephone and the PDA located external to the patient's body, wherein the system comprises:
    an the IMD,
    the at least one of a the mobile telephone and a the PDA, wherein the at least one of the mobile telephone and the PDA are adapted for being capable of receiving information from or relaying information to the IMD,
    means for generating an invoice in response to information relating to the IMD being relayed or transmitted from or to the at least one of: the mobile telephone, and the PDA, a remote computer system, and
    a communication system capable of bi-directional communication with the at least one of the mobile telephone and the PDA,
wherein the communications system is adapted to detect whether at least one of a component defect and a software defect exists within one of the IMD exists and the remote computer system, and in the event that the component defect or software defect is detected, further comprising means for determining whether a remote repair is available, and if not, further comprising means for simultaneously broadcasting an alert to: at least one of: a remote health care provider, a remote computer, a remote expert-based computer system.

32.   (currently amended) A computer readable medium for storing instructions for performing a method, said method involving generating an invoice for the provision of medical services relating to communicating information between an implantable medical device (IMD) implanted in a patient and a remote computer system, the method utilizing a system for at least one of monitoring the performance of the IMD, monitoring the health of the patient and remotely

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delivering a therapy to the patient through the IMD, the IMD being capable of bi-directional communication with a communication module located external to the patient's body, the system comprising the IMD, the communication module, a mobile telephone capable of being operably connected to the communication module and capable of receiving information therefrom or relaying information thereto, means for generating an invoice in response to information relating to the IMD being relayed or transmitted from or to the mobile phone, a remote computer system, and a communication system capable of bi-directional communication with the mobile phone and the remote computer system, the medium comprising:

    (a) <u>software encoded</u> instructions for operating the IMD to determine whether medical attention should be provided;

    (b) in response to the determination made in step (a), <u>software encoded</u> instructions for uploading data from the IMD to the communication module;

    (c) <u>software encoded</u> instructions for transferring the data from the communication module to the mobile telephone and thence on to the remote computer system via the communication system;

    (d) <u>software encoded</u> instructions for remotely analyzing the data;

    (e) <u>software encoded</u> instructions for determining on the basis of the analyzed data whether remedial action respecting at least one of the IMD and the patient is required;

    (f) <u>software encoded</u> instructions for remotely executing the determined remedial action via the communication system, and

    (g) <u>software encoded</u> instructions for automatically generating an invoice in response to at least one of steps (a), (b), (c), (d), (e) and (f) being carried out,

wherein the communications module is adapted to detect whether at least one of a component defect and a software defect exists within one of the IMD exists and the remote computer system, and in the event that the

component defect or software defect is detected, <u>software encoded</u> <u>instructions</u> ~~means~~ for determining whether a remote repair available, and if not, <u>software encoded instructions</u> means for <u>simultaneously</u> broadcasting an alert to<u>:</u> ~~at least one of:~~ a remote health care provider, a remote computer, a remote expert-based computer system.

33.   (currently amended) A computer readable medium for storing instructions for performing a method, said method involving communicating information between an implantable medical device (IMD) implanted in a patient and a remote computer system, the method utilizing a system for at least one of monitoring the performance of the IMD, monitoring the health of the patient and remotely delivering a therapy to the patient through the IMD, the IMD being capable of <u>simultaneous</u> bi-directional communication with at least one of a mobile telephone and a Personal Data Assistant (PDA) located external to the patient's body, wherein the system comprises the IMD, the at least one of the mobile telephone and the PDA, the at least one of the mobile telephone and the PDA being capable of receiving information from or relaying information to the IMD, means for generating an invoice in response to information relating to the IMD being relayed or transmitted from or to the at least one of the mobile telephone and the PDA, a remote computer system, and a communication system capable of <u>simultaneous</u> bi-directional communication with the at least one of the mobile telephone and the PDA<u>,</u> the medium comprising:

 (a) instructions for operating the IMD to determine ~~-whether~~ medical attention should be provided<u> due to operation of the IMD or a physiologic</u> <u>parameter of a patient</u>;

 (b) Instructions for <u>simultaneously</u> uploading data from the IMD to the at least one of the mobile telephone and the PDA communication module;

 (c) instructions for transferring the data from the at least one of the mobile telephone and the PDA to the remote computer system via the communication system;

(d)   instructions for remotely analyzing the data;

(e)   instructions for determining on the basis of the analyzed data whether remedial action respecting at least one of the IMD performance and the patient's physiologic conditions is required;

(f)   instructions for remotely executing the determined remedial action via the communication system, and

(g)   instructions for automatically generating an invoice in response to at least one of steps (a), (b), (c), (d), (e) and (f) being carried out, wherein the communication system further comprises instructions for mining patient history, at least one performance parameter integrity and a software status metric.